UNIVERSITY
OF TRENTO - Italy
Department of Civil, Environmental and Mechanical Engineering

XP-resilience

EXTREME LOADING ANALYSIS OF PETROCHEMICAL PLANTS AND DESIGN OF METAMATERIAL-BASED SHIELDS FOR ENHANCED RESILIENCE

http://r.unitn.it/en/dicam/xp-resilience

SEMINAR ANNOUNCEMENT

The following seminar will be organised on 24.10.2019 at 15.30 in room Aula Biblioteca

Damage of industrial facilities from earthquakes in Japan and its mitigation strategies

Keisuke MINAGAWA

Associate professor of Dept. of Mechanical Engineering, Saitama Institute of Technology
Visiting professor of Roma Tre University

Abstract:
Approximately 20% of the earthquakes having Magnitude 6 or more in the whole earth occurs in Japan and surroundings, although the area is only 0.1% of the whole earth. This is because Japan is located on the west side of the circum-Pacific seismic zone, and on 4 plates. The oldest record of the earthquake in Japan is year 416 AD, and Japan experienced very strong earthquakes such as the 2011 Tohoku Earthquake and 2016 Kumamoto Earthquake in this decade. According to the damage from earthquakes, mitigation strategies have been developed actively. Base isolation technologies that decouple structures from ground and vibration control technologies that absorb vibration response by dampers are effective strategies for earthquakes. This presentation reports the damage of industrial facilities from the 2011 Tohoku Earthquake and introduce mitigation strategies for earthquakes.

Short Biography:

Keisuke Minagawa is Associate professor in Mechanical Engineering at Saitama Institute of Technology – Department of Engineering, Japan.
His main scientific interests are mainly focused on seismic isolation and passive vibration control.
Research Topic: R&D of devices for vibration control and base isolation; Seismic assessment of mechanical structures; Dynamics of elevator and escalator

The seminar is organised by the XP-RESILIENCE research group
http://r.unitn.it/en/dicam/xp-resilience
Prof. Oreste S. Bursi

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 721816